Summary of CEM Guidelines

Domestic violence:

- Routine screening not indicated
- Simple questioning if suspicion of violence
- Consider child welfare
- ED staff should attend MARAC (Multi-Agency Risk Assessment Conferences)

Antidotes: See guideline for full list

Ketamine in children

- Consider all other options first
- Appropriate for short procedures as doses are designed to protect airway; consider GA if longer procedure
- No evidence around fasting; not an absolute contra-indication but preferred
- Doctor should be trained in Ketamine and advanced airway skills, able to manage complications including laryngospasm, airway obstruction, and apnoea
- Advice three staff present
- Full resuscitation available; ECG/BP/SpO2/RR monitoring; O2 given and suction available
- Monitored recovery; should be complete between 60-120 minutes
- Documentation and audit system in place
- No evidence for routine use of Midazolam or atropine
- Contraindications:
    - Age <12/12; under 24/12 by expert (Consultant) staff only
    - High risk laryngospasm (asthma, URTI/LRTI)
    - Abnormal airway
    - Severe psychological problems
    - Significant heart disease
    - Severe head injury/altered LoC
    - Intracranial hypertension/CSF obstruction
    - Intraocular pathology
    - Previous psychotic illness
    - Uncontrolled epilepsy
    - Hyperthyroidism
    - Porphyria
    - ADR to Ketamine
- Risks:
    - Mild agitation (20%); Mod/severe (1.5%)
    - Rash (10%)
    - Vomiting (7%)
    - Transient clonic movements (5%)
    - Airway problems (1%)
- 1mg/kg IV or 2.5mg/kg IM

First seizure

- Routine investigations: Na, glucose, ECG, HCG (if female of child bearing age), breath alcohol test if available. Any others only if clinical indication.
- Neuroimaging: MRI preferred, CT if delay to MRI. In department if suspicion of intracranial lesion, focal neurological deficit, persistent altered mental state, fever, persistent headache, focal/partial onset before generalisation, head injury, malignancy, immunocompromise, HIV, alcoholic, anticoagulated, bleeding diathesis. Otherwise as OP if reliable follow up available.
- Can discharge if full recovery, normal baseline investigations, suitable home circumstances
- Give advice on driving/lifestyle
- Follow up should be within two weeks

Lone severe headache

- For guideline, defined as onset <2 minutes
- CT and CT angio alone insufficient to rule out
- LP at least 12 hours after onset
- Nimodipine recommended; anti-fibrinolytics not helpful; no evidence for statins or mannitol
- Bed rest after LP not needed; replacing stylet prior to removing needle may reduce headache

Tricyclic Overdose

- RSI if GCS <9 or other airway concerns
- Single dose charcoal if <1 hour; gastric lavage if <1 hour and airway secured
- ECG needed; high risk if QRS >100ms, QTc>430ms, R/s ratio >0.7 in aVR
- Blood gas needed; VBG acceptable if no respiratory concerns
- Bolus fluid first line for hypotension, then $NaHCO_3$, then Vasopressor
- $NaHCO_3$ if hypotension, dysrhythmia, adverse ECG signs – aim for pH 7.45-7.55
- 10mg IV Glucagon if hypotension/dysrhythmia resistant to above
- Magnesium for dysrhythmia not responding to above
- Benzodiazepine if agitation or seizure
- Avoid phenytoin
- If asymptomatic and normal ECG observe for six hours

Acute Allergic Reaction

- Adrenaline – IM better than SC; IV ok if experienced and severe. No evidence for neb/inhaler/SL. Thigh is best site. Self-administered auto-injector recommended
- Don’t shave hair (if reaction to dye) or try gastric lavage
- Serial monitoring of tryptase can confirm allergic reaction
- Little evidence for antihistamines or steroids, but theoretical reasons for benefit and safe

Intravenous Regional Anaesthesia (Biers Block)

- Formal consent, pre-assessment (as for GA), performed in resuscitation area with two practitioners present; ECG and pulse oximetry; second IV access in uninjured limb
- Double cuff required; rotating distal -> proximal not recommended
- Cuff inflated at least 20 minutes, no more than 45; document pressures and times
- 3mg/kg of 0.5% Prilocaine
- Contraindications:
    - Morbid obesity
    - Peripheral vascular disease
    - Raynauds
    - Severe hypertension
    - Scleroderma
    - Epilepsy
    - Sickle cell disease or trait
    - Methaemoglobinaemia
    - Monckberg's calcinosis
    - Unco-operative/confused
    - B/L procedures needed
    - Allergy to LA
    - Infection to limb
    - Lymphoedema
    - Children – assess case-by-case

Triage

- Experienced, trained staff in a dedicated, safe area
- Occurs within 15 minutes of arrival, and takes less than 5 minutes
- Streaming, analgesia, and imaging may follow from triage

Rape/Sexual Assault

- Forensic examination should be by a trained clinician; preferably in a sexual assault referral centre
- Person-identifiable information should not be shared without consent unless exceptional situation
- Emergency contraception and PEP for STIs should be available
- No requirement to take pre-transfusion blood samples for police

Pre-Transfusion Sample for Police

- Should be taken by someone trained in chain of evidence procedures – generally not an EP
- Must not compromise clinical care
- Responsibility to find appropriate person rests with police

End of Life Care

- Involve patients and family, institute ceiling of care in ED including DNACPR if appropriate, communicate to GP and inpatient teams
- Consider LCP (or successor!), organ/tissue donation as a routine
- All departments should have procedures for handling sudden death, and facilities for the bereaved

Police Witness Statements

- Write promptly
- Generally only with consent; know the legal exceptions

Patients with Ruptured AAA

- Permissive hypotension – SBP >70 acceptable if patient alert
- Rapid, co-ordinated transfer to vascular centre, involving senior vascular trainee/Consultant
- 999 ambulance; medical escort if inotropes
- Don't take blood unless transfusion commenced before leaving
- Transfer initiated within 30 minutes of diagnosis
- Electronic transfer of CT (if done) best; otherwise CD/DVD with patient
- <85 with no more than moderate systemic disease – prompt referral
- >85 or severe systemic disease – Consultant/most senior discussion with receiving Consultant
- Arrest or intubated – unlikely to survive transfer
- No essential tests – ED US and ABG useful if promptly available; nothing should delay transfer
- Analgesia, fluids, blood products, inotropes may all be appropriate pre-transfer

HIV Testing

- Should be performed if will influence immediate patient care
- Screening may be appropriate, but only if local prevalence >2/1000
- If offered, needs robust support systems to transfer care of patients with positive result

Patient who Absconds

- Those at high risk of absconding should have assessment of capacity and clinical review prioritised
- Children who abscond without an adult should be highlighted through local safeguarding procedures
- Document appearance of those at risk on specific form
- Local written policy on when to involve security and police

Needlestick Injury

- Initial review is appropriate in ED; ongoing care should be via GP, occupational health, GUM, or ID. Letter should be sent to the service following the patient up, and local arrangements to follow up positive virology results should be in place
- ED care should include:
    - Risk assessment
    - Blood for baseline Hep B, Hep C, and HIV after consent
    - First dose Hep B immunisation, where appropriate
    - Initiating HIV PEP, where appropriate
    - Access to microbiology advice

Thromboprophylaxis

- No evidence of risk in upper limb immobilisation, or ambulatory patient in lower limb splint
- Thromboprophylaxis beneficial if lower limb injury and risk factor:
    - Age >50
    - Rigid immobilisation
    - NWB status
    - Acute severe injury dislocation, fracture, complete tendon rupture
    - Permanent risk (obesity, OCP, smoker, cancer, etc)
- Insufficient evidence for oral agents
- LMWH effective; should continue for duration of immobilisation
- Risk of heparin induced thrombocytopenia and major bleeding is low in patients with prophylactic LMWH

Pain

- Recognition and alleviation should be a priority from triage to discharge, and regularly audited
- In children, particular awareness of psychological aspect (fear)

Information Sharing to Reduce Community Violence

- Formal agreement not required
- Anonymised information on date/time, location, and weapon should be shared with Community Safety Partnership

Crowding in the Emergency Department

- Systems should be in place to monitor crowding
- Streaming will not help if problem is inadequate beds
- Everyone who attends an ED is entitled to an assessment
- Front-loading of investigations and involvement of senior clinicians in rapid assessment and treatment may help with patient flow

Potential Cervical Spine Injury

- Blunt trauma, mechanism with potential to image neck – image if:
    - GCS <15
    - Paralysis/focal neuro deficit/paraesthesia
    - SBP<90mmHg or RR<10 or >24
    - Pain ≥7/10
    - Urgent need to identify injury (e.g. pre-op)
    - Neck pain and any of:
        - Fall >1m/5 stairs
        - Axial load to head
        - MVC with combined speed >60mph, rollover, or ejection
        - Bicycle collision or accident involving motorised recreational vehicles
        - Age >65
        - Injured >48 hours ago or re-presenting with same injury
        - Pre-existing vertebral disease
    - Dangerous mechanism with visible injury above clavicles or thoracic injury with pain ≥7/10 (even if no neck pain/tenderness)
    - Can remove collar if none of above, and any of:
        - Simple rear-end MVC
        - Sitting position in ED
        - Ambulatory at any time since injury
        - Delayed onset neck pain
        - Absence midline tenderness
    - If then able to rotate neck 45^{o} without severe pain, considered cleared
- Penetrating trauma – no collar unless a bullet wound traverses neck; contra-indicated in stab wounds even in the presence of neurological deficit
- CT if:
    - GCS <13
    - Intubated
    - Inadequate plain films or abnormality seen
    - CT head being performed
    - Consider if:
        - Dementia
        - Neuro signs referable to c-spine
        - Severe neck pain
        - Known spinal disease
        - Unable to rotate L+R
- MRI (in addition to CT) if:
    - Neuro signs referable to c-spine
    - Suspicion of vertebral artery injury

Safe Sedation

Depth	Staffing	Competencies	Facilities	Monitoring
Anxiolysis (Entonox)	EP/ENP	ILS/ALS/local equivalent	ED	SpO2
Moderate (conscious)	EP seditionist; EP/ENP for procedure; nurse	ILS/ALS plus local sign-off	Resuscitation area	ECG, SpO2, NIBP; Capnography recommenced
Deep	EP seditionist; EP/ENP for procedure; nurse	RCoA initial assessment of competency plus local sign-off	Resuscitation area	ECG, SpO2, NIBP, capnography
Dissociative (Ketamine)	EP seditionist; EP/ENP for procedure; nurse	RCoA initial assessment of competency plus local sign-off	Resuscitation area	ECG, SpO2, NIBP, capnography
RSI	EP seditionist; EP/ENP for procedure; nurse	RCoA initial assessment of competency plus local sign-off; failed intubation/cricoid pressure/dose adjustment in critically ill	Resuscitation area	ECG, SpO2, NIBP, capnography

- Consent unless urgency precludes this
- Appropriate monitoring until recovered
- Oxygen to all sedated patients
- Need to be able to manage and rescue from at least level beyond that intended
- Pre-procedure assessment as for GA
- Fasting for moderate or deeper (six hours solids/2 hours clear fluids); clinical need may supercede this